of the endoscope, allowing a more leisurely examination in a variety of positions.

The radiographic appearances of established chronic pancreatitis are usually typical; however, in patients with recurrent attacks of acute pancreatitis the ductal system may be within normal limits or show only subtle changes.

Making a distinction between carcinoma of the pancreas and chronic pancreatitis is often difficult, requiring careful assessment of the radiographic evidence in the light of clinical findings. Carcinoma of the papilla on the other hand, usually can be diagnosed by direct vision and biopsy studies.

ERCP usually can distinguish medical from surgical causes of jaundice, but "skinny needle" percutaneous transhepatic cholangiography is simpler and less disturbing to the patient and has a low complication rate. In cases of jaundice with a suspected pancreatic cause, ERCP has the advantage of being able to outline both duct systems.

More recently, opacification of the biliary tract, with the patient in a 20° head-down position, has allowed identification of intrahepatic diseases such as cirrhosis and hepatic tumors.

Endoscopic sphincterotomy using diathermy has proved to be extremely safe and often results in the sponstaneous passage of retained stones after cholecystectomy. Dormia baskets and balloon catheters also have been used with remarkable success.

Thus, the widening application of ERCP has opened exciting new fields in both the diagnosis and treatment of pancreatic and biliary tract disease. The clinical value of some of these applications has already been established while others await more careful evaluation.

JAMES M. HALLS, MD

REFERENCES

Cotton PB: Progress Report ERCP. Gut 18:316-329, Apr 1977

Bilbao MK, Dotter CT, Lee TG, et al: Complications of endoscopic retrograde cholangiopancreatography (ERCP)—A study of 10,000 cases. Gastroenterology 70:314-320, Mar 1976

The Role of Computed Tomography in Acute Head Trauma

SINCE Hounsfield's and Ambrose's initial work, computed tomography (CT) has gained widespread acceptance in the evaluation of intracranial pathology. CT is especially useful and accurate in the detection of intracranial hemorrhage, especially in acute situations. At our institution, angiography is used only rarely in cases of head trauma: In a series of 1,000 patients, CT scanning was done in 316 patients (32 percent) and abnormalities were shown in 51 percent of cases; angiography was done in only 35 of the patients (3.5 percent), mostly preceding CT scanning or when pathologic conditions unrelated to trauma (tumors, aneurysms, infection) were suspected.

Some of the advantages of CT over other modalities used to diagnose head trauma (angiography, echography and radionuclide studies) are (1) the rapidity and ease of single or multiple examinations; (2) the low mortality and morbidity, especially since iodinated contrast materials are used rarely in head trauma cases; (3) the accurate evaluation of complications of intracranial hemorrhage, such as hydrocephalus, porencephaly and other structural changes; (4) the differentiation of intracerebral hematoma from contusion/edema, an important neurosurgical distinction, and (5) the detection of surgically correctable lesions in seemingly nonsalvageable cases, such as in "brain stem contusion" patients.

ARTHUR B. DUBLIN, MD

REFERENCES

Dublin AB, French BN, Rennick JM: Computed tomography in head trauma. Radiology 122:365-369, Feb 1977

Scott WR, New PF, Davis KR, et al: Computerized axial tomography of intracerebral and intraventricular hemorrhage. Radiology 112:73-80, Jul 1974

French BN, Dublin AB: The value of computerized tomography in the management of 1000 consecutive head injuries. Surg Neurol 7:171-183, Apr 1977

Pancreatic Pseudocyst: Total Evaluation

PSEUDOCYST OF THE PANCREAS may be a far more common sequela of pancreatitis than previously suspected from the more conventional radiographic methods of the past. With the advent of computed tomography and ultrasound, direct, noninvasive imaging of the pancreas is possible with discrete delineation of pseudocysts in and around the pancreatic bed.

Ultrasound is the method of choice in screening when pancreatic pseudocyst is suspected; it is less expensive, causes no known morbidity at the diagnostic energy levels used and does not expose the patient to radiation. Pseudocysts are dynamic lesions, and serial examinations with ultrasound are easily accomplished. Although with ultrasonography anatomic detail is not as precise as